Choose a Career on the Science Frontier*

*With the help of the Minority Access to Research Careers (MARC) Program—a special research training support program of the National Institute of General Medical Sciences

Prepared by
Office of Research Reports
National Institute of General Medical Sciences

Cover Photo:

(left)
Roslyn Blake
Former MARC student at City University of New York City College, now doing graduate work at Harvard School of Public Health

Wants to get a Ph.D. in occupational epidemiology

"I want to help people like my cousin who has cancer and wouldn't be around if it weren't for research."

(right)
Francesca Wilkins
MARC student at Tougaloo College in Mississippi

Wants to get an M.D.-Ph.D.

Wants "to be a part of the new technological era."

Robert Payne
MARC student at Lincoln University in Pennsylvania

Wants to get an M.D.-Ph.D.

"MARC has helped me realize that there are opportunities for minorities to excel in research."

SCIENCE: AN EXCITING CAREER

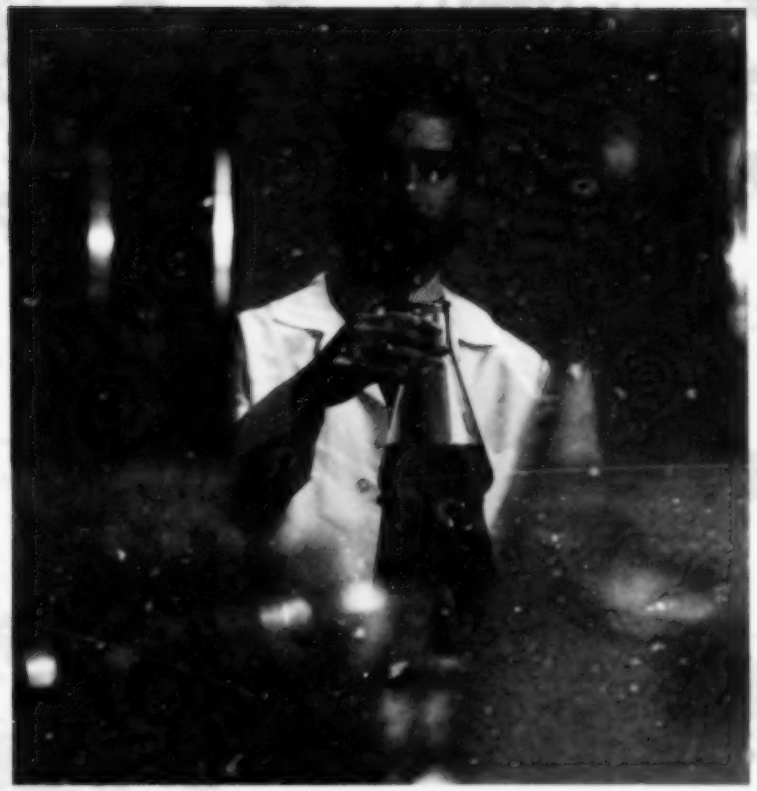
There is little doubt that we are living in the midst of a revolution in biology. In the second half of this century, determination of the structure of DNA (the hereditary material of living things) and the "code" by which DNA specifies protein production opened a vast new area to scientific exploration. The "recombinant DNA" techniques that resulted from those discoveries are the basis of the biotechnology industry and, just as important, have become crucial laboratory tools. These and other tools, such as monoclonal antibody technology (an outgrowth of research in immunology), have greatly expanded the range of questions modern scientists can ask. Answers are beginning to come in and research is progressing faster than anyone dreamed possible even 20 years ago. The next generation of biomedical scientists will work in one of the most exciting periods of human history.

WHAT'S IT LIKE TO DO RESEARCH?

Is research hard work? Yes, but scientists often cannot believe the fun they're having (and getting paid for it, too!). In addition, biomedical researchers are driven by a strong sense of mission. They know they are our best hope to treat, cure, and, what's even better, prevent diseases like cancer, heart disorders, diabetes, and AIDS.

Conducting science today requires an extensive array of instruments and computers, access to databases of all kinds, and special materials like specific live-cell cultures, enzymes, and DNA fragments. The typical research complex consists of many separate laboratory units that share equipment and ideas through seminars, informal gatherings, formal meetings, and visits by outside scientists.

Biomedical scientists do research in many areas, including anatomy, biochemistry, biophysics, biotechnology, cell biology, chemistry, computer modeling, embryology, epidemiology, genetics, immunology, microbiology, parasitology, pharmacology, physiology, and toxicology.



Clayton Maynor
MARC student at Pembroke State University in North Carolina

Wants to get an M.D.-Ph.D.

"I was going to go to pharmacy school but MARC changed my mind. There is a lot to do in biomedical research."

Ferman Chavez
MARC student at California State University, Long Beach

Wants to get an M.D.-Ph.D. and study biophysics

"Research is beautiful—it's a pleasure to understand something really difficult."

Lucinda Carnell
MARC student at California State University, Long Beach

Wants to get a Ph.D. in neurophysiology

"People have been so helpful to me —I want to put some of that back into the system."

MARC

A PROGRAM TO HELP

The MARC Honors Undergraduate Research Training Program can help you become a research scientist. To be a MARC student, you must attend a college that has a MARC program (see the end of this brochure for a current list). If you become a MARC honors undergraduate, in your third and fourth years of college you will receive support that covers your tuition and fees, as well as a stipend of $6,504.00 a year. The goal of this support is to enable you to compete successfully for entry into a graduate program leading to the Ph.D. or M.D.-Ph.D. degree in a biomedical science. The MARC Program also awards predoctoral fellowships on a highly competitive basis to distinguished graduates of the MARC honors undergraduate program. These fellowships provide tuition, fees, and a stipend for students pursuing a Ph.D. or M.D.-Ph.D. degree.

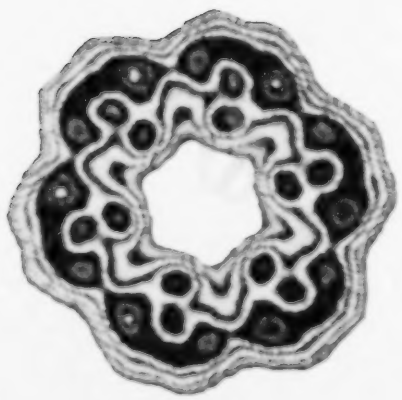
HOW TO QUALIFY

Thomas Edison said, "Genius is one percent inspiration and ninety-nine percent perspiration." So, first of all, be sure to continue to study hard. The work you put into learning will be well rewarded.

MARC students are selected on the basis of both their academic achievements and their commitment to subsequently obtain a Ph.D. or M.D.-Ph.D. degree in a biomedical science.

In high school and college you should take as many math and science courses as you can work into your schedule. To study for a career as a research scientist, the basic courses that you'll need include: biology, chemistry, organic chemistry, physical chemistry, biochemistry, physics, mathematics, calculus, statistics, and computer programming.

The decision to get a good education is one of the most important decisions of your life. It is your choice—with few exceptions, good students are made, not born.



The following institutions have MARC honors undergraduate programs and can be contacted directly for information:

Alabama A & M University
Department of Biology
P.O. Box 2359
Normal, AL 35762
(205) 859-7268

Alabama State University
Department of Biology
915 South Jackson Street
Montgomery, AL 36195
(205) 293-4301

Albany State College
504 College Drive
Albany, GA 31705
(912) 430-4823

Barry University
Department of Biology
11300 NE 2nd Avenue
Miami, FL 33161
(305) 758-3392 x332

Bennett College
Department of Computer Science
900 E. Washington Street
Greensboro, NC 27401
(919) 370-8648

Bethune-Cookman College
Division of Science
and Mathematics
Daytona Beach, FL 32015
(904) 255-1401 x315

California State University,
Long Beach
School of Natural Sciences
1250 Bellflower Boulevard
Long Beach, CA 90840
(213) 985-8640

California State University,
Los Angeles
Department of Chemistry
and Biochemistry
5151 State University Drive
Los Angeles, CA 90032
(213) 343-2300

Catholic University of Puerto Rico
Department of Chemistry
Avenue Las Americanas
Ponce, PR 00732
(809) 841-2000 x282

Central State University
Department of Biology
Wilberforce, OH 45384
(513) 376-6358

Charles Drew Postgraduate
Medical School
Department of Pediatrics
Mail Point 27
1621 East 120th Street
Los Angeles, CA 90059
(213) 563-5905

City University of New York
Brooklyn College
Department of Chemistry
Brooklyn, NY 11210
(718) 780-5741

City University of New York
City College
Department of Chemistry
Convent at 138th Street
New York, NY 10031
(212) 690-4142

City University of New York
Hunter College
Division of Science
and Mathematics
695 Park Avenue
New York, NY 10021
(212) 772-5353

City University of New York
Medgar Evers College
Division of Natural Sciences
and Mathematics
1150 Carroll Street
Brooklyn, NY 11225
(718) 735-1896

City University of New York
Lehman College
Office of the Dean of Natural
and Social Sciences
Shuster 302
Bedford Park Boulevard
Bronx, NY 10468
(212) 960-8764

Clark College
Department of Biology
240 Chestnut Street
Atlanta, GA 30314
(404) 681-8131

Delaware State College
Department of Biology
1200 N. DuPont Highway
Dover, DE 19901
(302) 736-3527

Dillard University
Division of Natural Sciences
2601 Gentilly Boulevard
New Orleans, LA 70122
(504) 286-4724

Fisk University
Department of Biology
Nashville, TN 37203
(615) 329-8796

Florida A & M University
Department of Chemistry
Martin Luther King Boulevard
Tallahassee, FL 32307
(904) 599-3638

Fordham University
Department of Chemistry
Rose Hill Campus
East Fordham Road
Bronx, NY 10458
(212) 579-2593

Hampton Institute
Department of Biology
Hampton, VA 23668
(804) 727-5279

Howard University
Department of Botany
415 College Street, NW
Washington, DC 20059
(202) 636-6929

Jackson State University
Department of Chemistry
1325 J.R. Lynch Street
Jackson, MS 39217
(601) 968-2171

Johnson C. Smith University
Department of Biology
100 Beatties Ford Road
Charlotte, NC 28216
(704) 378-1050

Lincoln University
Department of Biology
Lincoln, PA 19352
(215) 932-8300 x500

Montana State University
Biomedical Research Programs
Bozeman, MT 59717
(406) 994-2891

Morgan State University
Department of Biology
Cold Spring Lane
and Hillen Road
Baltimore, MD 21239
(301) 444-3070

New Mexico State University
Department of Biology
Las Cruces, NM 88003
(505) 646-3733

Norfolk State University
Department of Biology
2401 Corprew Avenue
Norfolk, VA 23504
(804) 683-8959

North Carolina A & T University
Department of Biology
Barnes Hall
1601 E. Market Street
Greensboro, NC 27411
(919) 334-7908

North Carolina Central University
Department of Biology
Box 19646
Durham, NC 27707
(919) 560-6388

Oakwood College
Department of Chemistry
Oakwood Road, NW
Huntsville, AL 35896
(205) 837-1630 x493

Pembroke State University
Department of Biology
Pembroke, NC 28372
(919) 521-4214 x245

Saint Mary's University
Department of Biology
One Camino Santa Maria
San Antonio, TX 78282
(512) 436-3555

San Jose State University
Department of Chemistry
San Jose, CA 95192-0101
(408) 924-4954

Savannah State College
Department of Biology
P.O. Box 20425
Savannah, GA 31404
(912) 356-2313

Southern University, Baton Rouge
Health Research Center
P.O. Box 9921
Baton Rouge, LA 70813
(504) 771-4241

Stillman College
Department of Natural Sciences
P.O. Box 1430
Tuscaloosa, AL 35403
(205) 349-4240 x605

Talladega College
Department of Biology
627 West Battle Street
Talladega, AL 35160
(205) 362-5152

Tennessee State University
Department of Biology
3500 Centennial Boulevard
Nashville, TN 37203
(615) 320-3097

Texas Southern University
Department of Biology
3100 Cleburne Street
Houston, TX 77004
(713) 527-7005

Tougaloo College
Department of Biology
Tougaloo, MS 39174
(601) 956-7943

Tuskegee University
Department of Biology
Old Montgomery Road
Tuskegee, AL 36088
(205) 727-8822

University of Alaska, Anchorage
Department of Biology
3211 UAA Drive
Anchorage, AK 99508
(907) 786-1239

University of Arkansas
at Pine Bluff
Department of Biology
1101 N. Cedar Street
Pine Bluff, AR 71601
(501) 541-6899

University of California,
San Diego
Department of Biology
La Jolla, CA 92023
(619) 534-2462

University of California,
Santa Cruz
Department of Biology
Santa Cruz, CA 95064
(408) 429-2835

University of the
District of Columbia
Mt. Vernon Square Campus
Department of Chemistry
4200 Connecticut Avenue, NW
Washington, DC 20008
(202) 727-2184 x2712

University of Hawaii, Manoa
Pacific Biomedical Research
Center
1993 East West Road
Honolulu, HI 96822
(808) 948-7401

University of Minnesota
at Duluth
Department of Physiology
School of Medicine
2205 East 5th Street
Duluth, MN 55812
(218) 726-8551

University of Puerto Rico,
Humacao University College
Department of Chemistry
CUH Station
Humacao, PR 00661
(809) 852-2525 x249

University of Puerto Rico,
Rio Piedras Campus
Department of Chemistry
Rio Piedras, PR 00931
(809) 764-0000 x3470

University of Texas at El Paso
Department of Chemistry
El Paso, TX 79968
(915) 747-5701

University of Texas
at San Antonio
Department of Earth
and Physical Sciences
San Antonio, TX 78285
(512) 691-4172

Virginia State University
Department of Life Sciences
Box 445
Petersburg, VA 23803
(804) 520-5244

Wayne State University
Department of Biological
Sciences
Detroit, MI 48202
(313) 577-2880

Xavier University
Department of Chemistry
Pine at Palmetto Street
New Orleans, LA 70125
(504) 483-7374

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